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ABSTRACT

It has been stated that a task label may shape the interpretation of a task, but the evaluation of that task depends on both that interpretation and the personal values, such as self-esteem, of the individual. The major purpose of this study was to examine the effects of self-esteem (high versus low), task label (difficult versus easy), and performance feedback (positive versus negative) on self-set goals, efficacy, performance, and attributions. Task perception was treated as a between-subjects variable in this study. Subjects (N=120) were undergraduate psychology college students who responded to a questionnaire measuring self-esteem, labeled an anagram-solving tasks as difficult or easy in two work periods, and had their task performance measured on the anagrams. Subjects set lower goals in the difficult condition than they did in the easy condition in the first period, however, no difference was found in the second period. High self-esteem subjects had higher self-efficacy than those with low self-esteem. For high self-esteem subjects, feedback had strong impacts on subjects' liking of a difficult task, whereas for those with low self-esteem, feedback had strong impacts on subjects' liking of an easy task. After positive feedback of performing a difficult task, those with high self-esteem increased their task liking, whereas those with low self-esteem decreased their liking. Subjects also showed higher intrinsic motivation after positive feedback than after negative feedback. (ABL)

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The Effects of Self-Esteem, Task Label, and Performance Feedback on Goal Setting, Efficacy, and Task Performance

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Running head: SELF-ESTEEM

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Abstract

Subjects set lower goals in the difficult condition than they did in the easy condition in the first period, however no difference was found in the second period. High self-esteem subjects (SEs) had higher self-efficacy than low SEs. For high SEs, feedback had strong impacts on subjects' liking of a difficult task, whereas for low SEs, feedback had strong impacts on subjects' liking of an easy task. After positive feedback of performing a difficult task, high SEs increased their task liking, whereas low SEs decreased their liking. Subjects also showed higher intrinsic motivation after positive feedback than after negative feedback.

The Effects of Self-Esteem, Task Label, and Performance Feedback on Goal Setting, Efficacy, and Task Performance

Tang and Baumeister (1984) stated that a task label may shape the interpretation of a task, but the evaluation of that task depends on both that interpretation and the personal values, such as self-esteem, of the individual. Locke, Shaw, Saari, and Latham (1981) reviewed the literature on goal setting and performance and concluded that "self-esteem was one of the most promising individual difference variables" (p. 125) and seemed "worthy of further study" (p. 142). Locke et al. (1981) further stated that "no reliable individual differences have emerged in goal-setting studies, probably because the goals were typically assigned rather than self-set" (p. 125, emphasis added).

Recently, there has been "a substantial shift in the tenor of goal setting research": This shift has been precipitated by the work of Bandura on a construct known as self-efficacy or personal efficacy (Landy, 1989, p. 410). Landy further stated:

> Bandura's major proposition is simple but elegant: the extent to which a person believes that he or she possesses the necessary skills and abilities to accomplish a goal in the face of adversity is closely bound to the effort expenditure and level of accomplishment of that person. (p. 411, emphases added).

Further, people with high personal efficacy will set high goals, persist in the pursuit of those goals, and set even higher goals

when the original goals have been met (Bandura, 1987). Thus, self-set goals are strongly associated with self-efficacy, performance, and ability and effort attribution.

The major purpose of the present study was to examine the effects of self-esteem (high vs. low SE), task label (difficult vs. easy), and performance feedback (positive vs. negative) on self-set goals, efficacy, performance, and attributions. Task perception was treated as a between-subjects variable in this study.

Self-Esteem

Self-esteem is "a global evaluation of the self" (Baumeister & Tice, 1985, p. 450; Coopersmith, 1967) or "a sense of worth or value" (Landy, 1989, p. 412). According to Rosenberg (1979), "a person's global self-esteem is based not solely on an assessment of his constituent qualities but on an assessment of the qualities that count" (p. 18). Self-esteem is also considered by many researchers as a hierarchical and multifaceted phenomenon (Fleming & Courtney, 1984; Shavelson, Hubner, & Stanton, 1976). Korman (1976) also suggested that people will develop attitudes and behave in ways that will maintain their level of self-esteem.

Brockner (1988) stated that "high self-esteem individuals (high SEs) differ from their low self-esteem counterparts (low SEs) in the way that they think, feel, and perhaps most importantly, behave" (p. 1). Brockner (1988) further suggested that low SEs are "more behaviorally 'plastic'" (p. 6) in that low

SEs' work motivation and performance are more susceptible to influence by external cues than are high SEs.

Baumeister and Tice (1985) further stated that high SEs' "primary control systems are designed to cultivate talents and maximize successes in order to excel," whereas low SEs' "primary control systems are designed to remedy personal deficiencies in order to reach minimally successful or satisfactory level of performance" (p. 451).

Difficult vs. Easy

Tang, Liu, and Vermillion (1987) studied subjects' anagram-solving task in a group setting and found that, in the first work period, subjects in the easy condition set higher goals than did those in the difficult condition. However, no significant difference was found in the second period. It appears that after the subjects have had first-hand information concerning the task, they have changed the perception of the task. In the present study, the anagram task was also adopted.

When the subjective probability of success is in the region of .5, individuals' task performance is at its best (cf. Atkinson, 1958, 1964; Stedry & Kay, 1966). That is, the relationship between task difficulty and performance takes the form of an inverted U (cf. Frost & Mahoney, 1976).

A task perceived as difficult may lead individuals to expect a low probability of success. Failure on a task may well constitute "a threatening, anxiety-provoking situation"

(Shrauger & Rosenberg, 1970, p. 406). People in such a difficult condition may set low goals to play it safe and avoid possible failure. An easy task may give individuals a false sense of security (cf. Campbell, 1984) and hence lead to high expectations of success. Following this line of reasoning, Hypothesis 1 was proposed as follows:

> Hypothesis 1: Subjects would set a lower goal in the difficult condition than in the easy condition in the first work period (when they had no direct experience with the task).

Feedback and Intrinsic Motivation

Intrinsic motivation is defined as performing an activity for no reward except the direct enjoyment of the activity itself (Deci, 1971). A common measure of intrinsic motivation is the amount of time subjects spend on the target task in a free-choice period without knowing that they are being observed (Deci, 1971; Tang, 1985, 1986, 1989; Tang & Baumeister, 1984; Tang, Liu, & Vermillion, 1987; Tang, Tollison, & Whiteside, 1987, 1989).

It has been suggested that verbal reinforcements tend to enhance subjects' intrinsic motivation on a task (Deci, 1972), whereas a threat of punishment for poor performance tends to undermine people's intrinsic motivation (Deci & Cascio, 1972). Thereby, Hypothesis 2 was presented as follows:

> Hypothesis 2: Subjects would show higher intrinsic

motivation after positive feedback than after negative feedback.

Baumeister and Tice (1985) further extended Deci's (1971) findings and proposed that high SEs increased their intrinsic motivation on a task after "success", whereas low SEs reduced their intrinsic motivation on the same task after success. It appears that "subjects with low self-esteem lost interest in the task when they succeeded" (Baumeister & Tice, 1985, p. 460, emphasis added). Thus, subjects' liking of the task was tested using Hypothesis 3:

Hypothesis 3: High SEs would increase their task liking after positive feedback, whereas low SEs would decrease their task liking after positive feedback.

Method

Subjects

A total of 143 undergraduate psychology students at a southeastern regional state university with 14,000 students participated in this study for extra credits. Usable data from 120 students (56 males and 64 females) were collected. Subjects' average age was 23.14 years (see Table 1).

Procedure

One week prior to the experiment, subjects completed a questionnaire which measured self-esteem (SE) (Rosenberg, 1965) and other filler items. A low score on the SE measure indicates a high level of SE. The experimenter was blind concerning

subjects' scores on the SE measure. The experiment was conducted in the three adjacent rooms of the Counseling Laboratory in the Psychology Department. Each room was equipped with a door, a one-way mirror, one large table, and several chairs. Window shades were drawn to cover the one-way mirror leaving only a small gap through which an observer was able to watch and record the behaviors of the subject.

An identical anagram-solving task was labeled as either difficult or easy. Each subject was assigned to the difficult or easy condition at random. The subject was informed that he or she would solve some difficult (or easy) anagrams and there were two separate eight-minute work periods. Two different anagram lists, with 25 anagrams on each, were used. Subjects were given some sample anagrams to practice before the first work period.

Prior to the first work period, subjects were asked to complete a questionnaire which measured their self-set goal (the number of anagrams they would solve during the first eight-minute period), self-efficacy (the level of certainty, from 0% to 100%, in completing the goal), task perception (on a 7-point scale with very easy (1) and very difficult (7) as anchor points), and other items. Then, the experimenter left the room for eight minutes.

The experimenter scored and recorded the task performance on the anagram sheet. Thus, the subject had knowledge of results (KR). Each subject received bogus performance feedback (positive or negative) at random as follows:

You have completed _____ (number of correctly solved) anagrams. This is above (or below) the number of anagrams solved by the average college students. This is very good (or very poor).

The subject was then asked to indicate their goal setting, efficacy (for the second period), task perception, task liking, attributions, and other items and work on the second anagram list. After the second period was over, the subject received knowledge of results (KR). However no feedback was given.

The experimenter told the subject that in order to receive the extra credit, the experimenter had to go to the office to get a receipt book. The experimenter further explained that:

I also need to set up the anagrams and papers for the next subject in this room. Thereby, I have to ask you to go to the second experimental room until I return.

The experimenter then left the room, closed the door, purposefully leaving the subject in the second room with the impression that the experiment was over. Once the experimenter closed the door, an observer, concealed behind the one-way mirror in the third observation room, began timing the subject's activities for the eight-minute free-choice period. The observer was blind as to subject's SE score, the task label, and the bogus performance feedback.

In the second room, there were four sheets of anagrams marked "practice anagrams" with one or two anagrams completed and

a partially completed jigsaw puzzle on the desk. The amount of time, as expressed in seconds, the subject spent on anagrams was recorded and considered as a measure of intrinsic motivation. After eight minutes had elapsed, the experimenter returned, provided the receipt, and thanked the subject for the completion of the experiment. The subjects were asked not to disclose the nature of the experiment and were debriefed later.

Results and Discussion

The mean, standard deviation, and correlations of variables are presented in Table 1. The subjects were divided into high and low SE groups based on a median split of their scores on the SE measure. The results were analyzed by analyses of variance.

Manipulation Check

The results of task perception showed that subjects in the difficult condition tended to perceive the task as more difficult (M = 4.33) than did those in the easy condition (M = 4.22). However, the difference was not significant, F (1, 118) = .30, p = .568. Further, subjects in the positive feedback condition considered their performance as more successful (M = 3.49) than did those in the negative feedback condition (M = 2.63) and the difference was significant, F (1, 118) = 17.17, $p < .001$. Thus, the manipulation of performance feedback was successful.

First Work Period

Goal Setting. Subjects' self-set goals for the first work period were analyzed using a 2 (high vs. low SE) x 2 (difficult

vs. easy) ANOVA. The main effect of task label was significant [F (1, 116) = 11.71, p = .001, omega squared = .081], i.e., subjects in the easy condition set significantly higher goals (M = 14.77) than did those in the difficult condition (M = 11.47). Thereby, Hypothesis 1 was supported by the present data. However, the main effect of self-esteem and the interaction effect failed to reach significance.

Insert Table 1 about here

Although the result of our manipulation check of task perception was not significant, yet subjects' self-set goals were strongly influenced by the manipulation. Subjects in the difficult condition may have perceived the label as a threat and want to "play it safe" in order to avoid possible failure.

Self Efficacy. Subjects' certainty in completing the goal was again analyzed using a 2 x 2 ANOVA. No significant results were found.

Task Performance. The number of anagrams actually solved was examined. However, no significant results was discovered.

Second Work Period

Goal Setting. A 2 x 2 x 2 (SE x task label x feedback) ANOVA was employed to examine the subjects' self-set goals. The main effect of task label was not significant, [F (1, 112) =

1.98, p = .162]. Other main effects and interaction effects were not significant.

Thus, it appears that the effect of task label has strong impacts on subjects' self-set goals during the first work period but not during the second work period. These results supported previous findings in that subjects may have redefined their perception of the task after they have some first-hand experience with the task (cf. Tang, Liu, & Vermillion, 1987).

Self Efficacy. The main effect of SE had a significant impact on subjects' self efficacy [F (1, 112) = 4.54, p = .035, omega squared = .028]. That is, high SEs had a higher efficacy (M = 73.18%) than had low SEs (M = 64.89%).

Task Performance. Similar to the performance during the first period, the results of ANOVA failed to show any significant results. Thus, subjects performed equally well on the task.

Task Liking. Subjects in the positive feedback group tended to like the task much better (M = 5.12) than did those in the negative feedback group (M = 4.64) and the difference was significant [F (1, 112) = 14.35, p = .001, omega squared = .097]. Further, the three-way interaction effect was significant [F (1, 112) = 8.83, p = .004, omega squared = .057]. The means of the three-way interaction effect are presented in Table 2. Other main effects and interaction effects were not significant.

Further analyses of the means using simple-effects tests revealed that under the easy condition, low SEs tended to like

the task significantly better after positive feedback (M = 5.00) than they did after negative feedback (M = 2.58) [F (1, 56) = 12.79, $p < .05$]. On the other hand, under the difficult condition, high SEs tended to like the task more after positive feedback (M = 4.52) than they did after negative feedback (M = 2.82) [F (1, 56) = 9.95, $p < .05$].

Further, in the positive feedback/difficult task condition, high SEs showed higher task liking (M = 4.52) than did low SEs (M = 3.30) [F (1, 56) = 6.25, $p < .05$]. Thus, Hypothesis 3 was supported by the present data.

Insert Table 2 about here

Attribution

Subjects' ability, task, effort, and luck attributions were also examined in 2 x 2 x 2 ANOVAs. The results showed that feedback had strong main effects on ability and effort attributions [F (1, 112) = 11.79, p = .001, omega squared = .080; F (1, 112) = 9.01, p = .003, omega squared = .062, respectively]. Thus, subjects in the positive condition claimed that they had higher ability (M = 3.61) and exerted more effort (M = 6.26) than did those in the negative group (M = 2.76, 5.62, respectively). Other results were not significant.

Intrinsic Motivation

Subjects in the positive feedback group spent more time on the task during the free-choice period (M = 131.52) than did those in the negative feedback group (M = 70.05) [F (1, 112) = 5.55, p = .020, omega squared = .037]. Thus, our results supported the notion that verbal reinforcements tend to enhance people's intrinsic motivation on a task (cf. Deci, 1975; Deci & Cascio, 1972). Hypothesis 2 was supported.

Correlation Data

Self-esteem was significantly related to efficacy in both work periods and the ability attribution (see Table 1). Further, self-set goal, efficacy, and task performance in both work periods were significantly correlated. Intrinsic motivation on the task was associated with ability and task liking.

Conclusions

In this studies, subjects' self-set goals are influenced by the task perception. Subjects set low goal in the difficult condition in order to avoid possible failure. The finding may be caused by the nature of the task and the subjects involved in the study.

Although college students are familiar with the anagram-solving task, they do not solve anagrams regularly. Thus, the anagrams may not be considered as a very well learned task and the label difficult may be perceived as a "threat" by the subjects in the first study. Subjects' knowledge, skill, and

experience can also be used to explain the results related to self-efficacy and task performance.

There was no difference on self-efficacy and performance between high SEs and low SEs during the first period. For the second period, no difference on performance was found. However, high SEs showed higher self-efficacy than low SEs.

It is possible that high SEs, without first-hand information and experience related to the target task, may have suffered the so-called "choking under pressure" reaction during the first work period (cf. Tang, Liu, & Vermillion, 1987). It takes only one work period (eight minutes), however, for high SEs to build up their confidence and certainty on a new task even though high SEs' actual performance on the task is not any better than low SEs. Tang, Liu, and Vermillion (1987) suggested that this is probably caused by the fact that high SEs emphasize their abilities, strengths, and good qualities (Baumeister & Tice, 1985) and think that they are very good (Rosenberg, 1965).

Positive feedback leads to a high level of ability and effort attribution and a high level of intrinsic motivation in the free-choice period (cf. Deci, 1975; Deci & Cascio, 1972). Further, in the difficult condition, high SEs increase their task liking after success, whereas low SEs decrease their task liking after success supporting and extending the findings of Baumeister and Tice (1985). In the easy condition, low SEs like the task better after success than after failure. Thus, it appears that

high SEs focus on challenging tasks and try to maximize successes, whereas low SEs try to get by on an easy task and reach minimally successful level of performance (cf. Baumeister & Tice, 1985).

Finally, the experiment reported in the present paper represents a laboratory study using college students. Our results clearly indicate that subjects' ability, knowledge, experience, and skill related to the target task are strongly related to and may have impacts on their perception of the task. The subjects' personal value, self-esteem, also has played a very important role in their behavior in the study (cf. Tang & Baumeister, 1984). It is plausible that the results of the present study may be applicable to other industrial settings (cf. Locke, 1986).

When goal setting is applied to new employees who are not familiar with the task on the job, the results may be similar to that of our present study. Please also notice that no difference in terms of task performance was found. Future research should test this hypothesis directly.

In our society, we all want to be winners and have positive self-esteem. Therefore, help employees build up their self-esteem or organization-based self-esteem (e.g., Pierce, Gardner, Cummings, & Dunham, 1989) would be an important task for managers in personnel and human resources management, and organizational behavior. More hard work and effort in this area are definitely

needed. Based on Bandura's (1987) proposition of self-efficacy, the present authors suggest that in order to reach a high level of success, people need to (1) have a high level of self-esteem (i.e., believe that they have the necessary ability and skill to achieve a goal) and set a difficult and challenging goal, and (2) exert effort (with given ability) and have a high level of performance on the task.

Summary: The results of the present study can be best summarized using the following formula:

Self-Esteem X Effort = Success.

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Table 1

Mean, Standard Deviation, and Correlations of Variables

Variable	M	SD	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age	23.42	6.47	04	47***	-09	-01	-02	11	06	08	04	04	-27***	-21*	-06	-07	02
2. Sex (Male=1, Female=0)				15*	-14	-08	11	13	10	19*	11	07	-04	03	-01	12	01
3. Education	14.38	1.34			-12	-16*	-02	32***	09	14	24**	18*	-08	-12	23**	08	-11
4. Self-Esteem	18.10	4.51				-14	-20*	-11	-14	-25**	-13	-27**	07	-11	-14	-12	-22
5. Goal-1	13.12	5.28					43***	19*	48***	30***	23**	18*	-01	16*	-13	16*	-05
6. Efficacy-1	74.01	16.93						24**	36***	66***	28***	32***	00	25**	06	19*	04
7. Performance-1	5.78	2.91							62***	29***	63***	42***	-26**	10	17*	25**	-01
8. Goal-2	8.32	3.79								39***	47***	51***	-13	13	02	29***	12
9. Efficacy-2	69.45	20.54									34***	40***	-05	21*	-02	28***	07
10. Performance-2	4.87	2.70										37***	-06	06	14	22	11
11. Ability	3.17	1.36											-03	20*	07	58***	22**
12. Task	5.18	1.33												18*	01	00	-06
13. Effort	5.93	1.14													-05	28***	11
14. Luck	2.35	1.46														03	15
15. Liking	3.71	1.72															28***
16. Intrinsic (Time)	98.15	139.80															

Note. N = 120. All decimals have been omitted for correlations. *p < .05, **p < .01, ***p < .001.

Table 2

The Three-Way Interaction Effect on Task Liking

	Difficult		Easy	
Self-Esteem	Positive	Negative	Positive	Negative
High	4.53[a] (19)	2.82[b] (11)	4.13 (16)	3.40 (20)
Low	3.30[c] (10)	3.50 (20)	5.00[d] (12)	2.58[e] (12)

Note. Cell ns are presented in parentheses. Means not sharing a common superscript are significantly different from each other ($p < .05$) for each comparison.